

## STATEMENT OF BASIS

**Clark Public Utilities  
River Road Generating Plant  
Permit Modification  
Permit No. WA0040932**

The purpose of this statement of basis is to explain the need to modify the wastewater discharge permit and provides the basis for the changes.

### I. GENERAL INFORMATION

**Permitee:** Clark Public Utilities  
1200 Fort Vancouver Way  
Vancouver, WA 98668

**Facility:** River Road Generating Plant  
5201 NW Lower River Road  
Vancouver, WA 98660

**Discharge Location:** Outfall 001, Columbia River  
Latitude: 45° 38' 45" N  
Longitude: 122° 43' 45" W

Outfall 003, Shillapoo Lake  
Latitude: 45° 38' 31" N  
Longitude: 122° 45' 38" W

### II. MODIFICATION

On August 5, 2005, the Department of Ecology (the Department) received a permit modification request (the PMR). The PMR was reviewed by Jacek Anuszewski, P.E., the Department's Environmental Engineer. The PMR requested correction of the following topographical error, "The average monthly limit and the maximum daily limit for ammonia [Outfall 001] are expressed in µg/L in the permit and they apparently should be expressed as mg/L".

The Department reviewed ammonia limit calculations for Outfalls 001 and 003 and concluded that they should be expressed in mg/L instead of µg/L. Based on this conclusion the Department recalculated a reasonable potential to violate ammonia surface water quality criteria using data listed in [TSDCALC11.XLS](#) spreadsheet available at the following website:  
<http://www.ecy.wa.gov.porgrams/eap.pwsread/pwsread.html>.

### III. CONCLUSION

There is not reasonable potential to violate the water quality criteria for ammonia at Outfall 001 and 003; therefore, limits and monitoring requirements for ammonia are proposed to be removed from the permit.

Appendix A, B, C follow

*Appendix A Table 1 Effluent characterization form Ammonia*

**Table 1 Effluent characterization for ammonia; discharge monitoring reports (DMRs)**

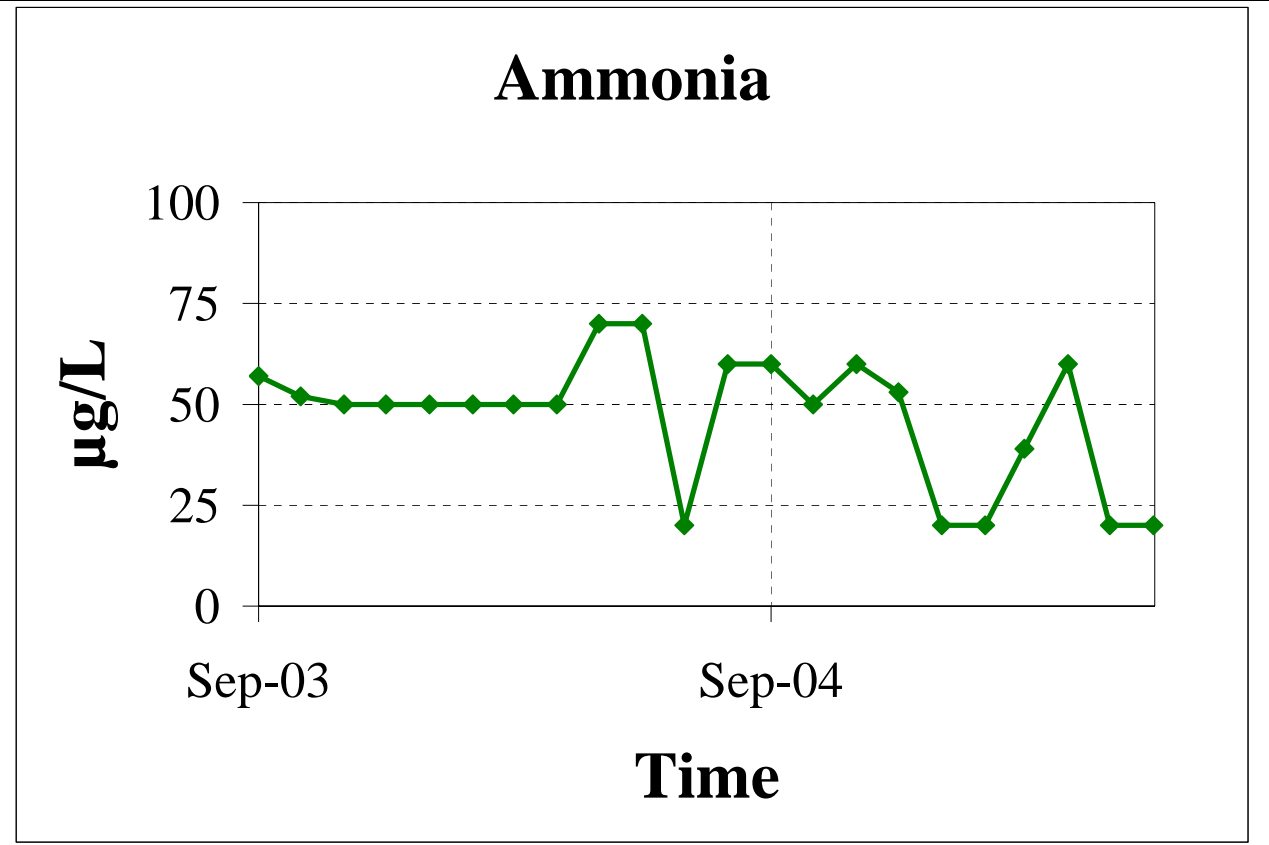
<b>Date</b>	<b>Units</b>	<b>Ammonia concentration</b>
1-Sep-03	µg/L <sup>1</sup>	57
1-Oct-03	µg/L	52
1-Nov-03	µg/L	50
1-Dec-03	µg/L	50
1-Jan-04	µg/L	50
1-Feb-04	µg/L	50
1-Mar-04	µg/L	50
1-Apr-04	µg/L	50
1-May-04	µg/L	70
1-Jun-04	µg/L	70
1-Jul-04	µg/L	20
1-Aug-04	µg/L	60
1-Sep-04	µg/L	60
1-Oct-04	µg/L	50
1-Nov-04	µg/L	60
1-Dec-04	µg/L	53
1-Jan-05	µg/L	20
1-Feb-05	µg/L	20
1-Mar-05	µg/L	39
1-Apr-05	µg/L	60
1-May-05	µg/L	20
1-Jun-05	µg/L	20

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<sup>1</sup> Micrograms per liter

*Appendix B – Figure 1 Effluent characterization for ammonia*

**Figure 1 Effluent characterization for ammonia; discharge monitoring reports (DMRs)**



*Appendix C—Technical calculations*

**Table 2 Technical calculations for ammonia limit requirement ([TSDCALC11.XLS](#))**

Location			Discharge to Columbia River	Discharge to Shillapoo Lake Wetlands
Ambient Concentration		mg/L	0.1000	0.1000
State Water Quality Standards	Acute	mg/L	14.2826	14.2826
	Chronic	mg/L	1.4563	1.4563
Maximum concentration at the edge of:	Acute Mixing Zone	mg/L	0.10	0.12
	Chronic Mixing	mg/L	0.10	0.12

**Table 2 Technical calculations for ammonia limit requirement ([TSDCALC11.XLS](#))**

	Zone			
<b>Is limit required?</b>			<b>NO</b>	<b>NO</b>
Effluent percentile value			0.95	0.95
		Pn	0.873	0.873
Max effluent conc. Measured		mg/L	0.09	0.09
Coeff Variation		CV	0.60	0.60
		s	0.55	0.55
# of samples		n	22	22
Multiplier			1.32	1.32
Acute Dil'n Factor			8	1
Chronic Dil'n Factor			190	1